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PATRICIA A. RUBIO Patricia A. Rubio
Name (Print) Signature

Customer No.: 07278

Dkt. No. 09659/100L377-US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Kanji Nakamura; Toshihiro Ueno

Serial No.: N/A

Filed: Currently herewith

For: NUCLEIC ACID, NUCLEIC ACID FOR DETECTING CHLORINATED
ETHYLENE-DECOMPOSING BACTERIA, PROBE, METHOD OF
DETECTING CHLORINATED ETHYLENE-DECOMPOSING BACTERIA,
AND METHOD OF DECOMPOSING CHLORINATED ETHYLENE OR
ETHANE

December 19, 2003

INFORMATION DISCLOSURE STATEMENT

MS Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

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This Information Disclosure Statement is submitted in accordance with 37 C.F.R. 1.97, 1.98, and it is requested that the information set forth in this statement and in the listed documents be considered during the pendency of the above-identified application, and any other application relying on the filing date of the above-identified application or cross-referencing it as a related application.

1. This IDS should be considered, in accordance with 37 C.F.R. 1.97, as it is filed: (Check one of the boxes A-D)

- ☒ A. Within three months of the filing date of the above-identified national application or within three months of the entry into the national stage of the above-identified international application.
- ☐ B. before the mailing date of a first office action on the merits, or a first office action after filing a request for continued examination.
- ☐ C. after (A) and (B) above, but before the mailing date of a final rejection, a notice of allowance, or any other action that closes prosecution, and Applicants have made the necessary statement in box "i" below or paid the necessary fee in box "ii" below.

(check one of the boxes "i" and "ii" below:)

- ☐ i. Counsel states that, upon information and belief, each item of information listed herein was either (a) cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or (b) was not cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of undersigned after making reasonable inquiry, was not known to any individual designated in 1.56(c) more than three months prior to the filing of this IDS.
- ☐ ii. A check for the fee set forth in 1.17(p), presently believed to be \$180, is enclosed.
- ☐ D. after (A), (B) and (C) above, but before payment of the issue fee: Counsel states that, upon information and belief, each item of information listed herein was either (i) cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the IDS; or (ii) was not cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the undersigned after making reasonable inquiry, was not known to any individual designated in 1.56(c) more than three months prior to the filing of this IDS.

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- [] i. A check for the fee set forth in 1.17 (p), presently believed to be \$180, is enclosed.

2. In accordance with 37 C.F.R. 1.98, this IDS includes a list (e.g., form PTO/SB/08A) of all patents, publications, or other information submitted for consideration by the office, either incorporated into this IDS or as an attachment hereto. A copy of each document listed is attached, except as explained below.

(check boxes A and/or B and fill in blanks, if appropriate.)

- ☐ A. Document(s) _____ is (are) deemed substantially cumulative to document(s) _____, and, in accordance with 1.98(c), only a copy of each of the latter documents is enclosed.
- ☒ B. Certain documents were previously cited by or submitted to the Office in the following prior applications, which are relied upon under 35 U.S.C. 120:

09/911,860 filed July 24, 2001

Applicant Identifies these documents by attaching hereto copies of the forms PTO-892 and PTO- 1449 from the files of the prior application(s) or a fresh PTO/SB/08A listing these documents, and request that they be considered and made of record in accordance with 1.98(d). Per 37 CFR 1.98(d), copies of these documents need not be filed in this application.

[] 3. Document Nos. _____ are not in the English language. In accordance with 1.98(c), Applicant states:

- ☐ An English translation of each document (or of the pertinent portions thereof), or a copy of each corresponding English-language patent or application is enclosed.
- ☐ A concise explanation of the relevance of document(s) _____ is found in the attached search report (see MPEP § 609 A(3)x).
- ☐ A concise explanation of the relevance of document(s) _____ is set forth as follows: [Insert concise explanation of relevance]
- ☐ A concise explanation of the relevance of document(s) _____ can be found on pages _____ of the specification.
- ☐ A concise explanation of document(s) _____ can be found on the attached sheet.

[] 4. No explanation of relevance is necessary for documents in the English language (see MPEP § 609 A(3)).

[] 5. Other information being provided for the examiner's consideration follows:

6. In accordance with 37 C.F.R. 1.97(g) and (h), the filing of this IDS should not be construed as a representation that a search has been made or that information cited is, or is considered to be, material to patentability as defined in §1.56 (b), or that any cited document listed or attached is (or constitutes) prior art. Unless other-wise indicated, the date of publication indicated for an item is taken from the face of' the item and Applicant reserves the right to prove that the date of publication is in fact different.

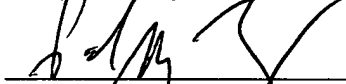
CROSS REFERENCE UNDER 37 C.F.R. §1.78 TO RELATED APPLICATIONS

Pursuant to 37 C.F.R. § 1.78, Applicant notes that the above-identified patent application is a divisional application of the following U.S. Patent Application:

(1) U.S. Patent Application Serial No 09/911,860 , filed July 24, 2001 .

Early and favorable consideration is earnestly solicited.

Respectfully submitted,



Paul M. Zagar
Registration No. 52,392
Attorney for Applicant(s)

December 19, 2003

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Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>			Complete if Known		
			Application Number	Not Yet Assigned	
			Filing Date	Concurrently Herewith	
			First Named Inventor	Kanji Nakamura	
			Art Unit	N/A	
			Examiner Name	Not Yet Assigned	
Sheet	1	of	1	Attorney Docket Number	09659/100L377-US1

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	BA	EP-0 921 188-A2	06-09-1999	Anderson, et al.		
	BB	WO-00 63443-A1	10-26-2000	Hendrickson, et al.		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
	CA	MAYMO-GATELL X. et al: "Reductive Dechlorination of Chlorinated Ethenes and 1,2-Dichloroethane by "Dehalococcoides ethenogenes" 195"; APPLIED AND ENVIRONMENTAL MICROBIOLOGY, Vol. 65, No. 7, July 1999, p. 3108-3113.		
	CB	HE J. et al: "Detoxification of vinyl chloride to ethene coupled to growth of an anaerobic bacterium"; NATURE, Vol. 424, 3 July 2003, pages 62-65		
	CC	LOFFLER F. et al: "16S rRNA gene-based detection of tetrachloroethene-dechlorinating Desulfuromonas and Dehalococcoides species"; APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 66. no. 4, April 2000, pages 1369-74.		
	CD	ELBERSON M ET AL: "Detection of dechlorinating bacteria in groundwater and soils from waste sites contaminated with PCE and TCE"; ABSTRACTS IN ENVIRONMENTAL AND GENERAL APPLIED MICROBIOLOGY, vol. 99, 30 May 1999, page 359.		
	CE	CARROL A ET AL: "The molecular detection of "Dehalococcoides ethenogens" in PCE and TCE-contaminated sites by PCR"; ABSTRACTS IN ENVIRONMENTAL AND GENERAL APPLIED MICROBIOLOGY, vol. 90, 30 May 1999, page 539.		
	CF	HOLOMAN TRACEY R PULLIAM ET AL: "Characterization of a defined 2,3,5,6-tetrachlorobiphenyl-ortho-dechl orinating microbial community by comparative sequence analysis of genes coding for 16S rRNA"; APPLIED AND ENVIRONMENTAL MICROBIOLOGY, WASHINGTON, D.C. US, vol. 64, no. 9, 1998, pages 3359-3367.		
	CG	MAYMO-GATELL et al. (1997) Science 276:1568-1571		
	CH	Miskin et al., Microbiology 145:1977-1987, 1999; GenBank accession number AF093598		
	CI	Stackebrandt, Encyclopedia of Life Sciences, pages 1-7, 2001		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
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